

REMARKS

The present filing is responsive to the Office Action.

Information Disclosure Statement

Applicant submitted an Information Disclosure Statement on July 11, 2008, citing two Japanese patent documents. The Examiner has not yet indicated consideration of such citations. Applicant respectfully requests confirmation of such consideration, making the citations of record.

Summary of the Response

No claim has been amended. New claim 14 has been added. Claims 1-14 remain pending in this application. Reexamination and reconsideration of the present application as amended are respectfully requested.

Claim Rejections under 35 USC 103

Claims 1-9 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al (US 6,278,178) in view of Slager (US 6,399,004). Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al (US 6,278,178) in view of Kitahara (US 5,440,452). These rejections are respectfully traversed.

The present invention provides a carrier having a conductive pattern thereon for direct connection to an electronic element (e.g., a sensor) to be supported on the carrier. The conductive pattern is provided also on the side of the carrier, thus resulting in a more compact

design, allowing further miniaturization of the carrier structure. In the office action, the Examiner acknowledged that Kwon does not disclose a body acting as a carrier of the conductor pattern and as a carrier of the [electronic] elements. This is not the only deficiency of Kwon with respect to the claimed invention. The Examiner referred to element 16 in Kwon to correspond to the recited conductor pattern. Applicant respectfully disagrees.

Claim 1 requires an electrically insulating body provided with a conductor pattern, which insulating body is provided with a first and a second side between which an enclosed angle is present of substantially less than 180 degrees, wherein the conductor pattern extends over and is recessed in the first and the second side, and wherein the conductor pattern comprises a number of strip-shaped conductors provided each with at least one region of larger dimensions than the width of the strip-shaped conductors, which regions are suitable for electrical contacting of electronic elements to be assembled together with the insulating body, said body acting as a carrier of the conductor pattern and as a carrier of the elements. By nature of a conductor pattern as recited and supported in the specification, the recited conductor pattern is provided on the insulating body in a recess thereon, and not a conductor wire extending from the insulating body. Kwon is instead directed to a chip support structure in which metal wires 16 are used to connect between bond pads 15 on the chip 14, to the first lands 12a on the substrate 11. The wires 16 do not correspond to the recited conductor pattern, as they are not or not part of a pattern provided on an insulating body, as required by claim 1. Further, given that the wires 16 do not correspond to the or a part of the recited conductor pattern, the wires 16 in Kwon does not disclose the recited conductor pattern having strip-shaped conductors provided each with a region of larger dimensions than the width of the strip-shaped conductors. Given that the recited conductor pattern is provided on the insulating body, the strip-shaped conductors and the region of larger

dimensions are necessarily found on the insulating body, which provides for electrical contact with an electronic element. Kwon does not disclose that the larger regions are suitable for electrical contacting of electronic elements to be assembled together with the insulating body. Accordingly, the Examiner erred in referring to wire 16 to correspond to the recited conductor pattern.

Slager does not make up for the deficiencies of Kwon. Slager also does not disclose a conductor pattern provided on an insulating body. Like Kwon, Slager is also directed to a chip carrier in which wires 14a and 14b are used to connect between the chip and the carrier 12. Further, like Kwon, Slager also does not disclose a body acting as a carrier of the conductor pattern and as a carrier of the electronic elements. Applicant does not understand how the Examiner can rely on Slager to show an insulating body that is a carrier common of a conductor pattern thereon and of electronic elements. Accordingly, even if Slager can somehow be combined with Kwon in the manner suggested only by the Examiner, such combination does not obtain the claimed invention.

Further, there is no teaching, suggestion, motivation or any apparent reason to combine Kwon and Slager in the first place. Even if the references are analogous art from the same field of endeavor, there is no teaching, suggestion, motivation or apparent reason to combine the references to obtain the unexpected results achieved by the present invention, which is to improve on the carrier structure to provide miniaturization of the structure.

Accordingly, claim 1, and all claims dependent therefrom, are not rendered obvious by Kwon and Slager.

With respect to the obviousness rejection of dependent claims 10 and 11, it is clear that the Examiner has not been consistent in setting forth the reasons for rejection. Claim 10 depends

from claim 9 (which in turn depends from claim 1), but claim 9 has been rejected based on Kwon and Slager, and claim 10 has been rejected based on a different combination of Kwon and Kitahara. In the rejection of claim 10 (see, paragraph 4 in the office action), the Examiner seems to have asserted that Kwon teaches the structure recited in claim 1, including the body acting as a carrier of the conductor pattern and as a carrier of the electronic elements. This contradicts the specific admission by the Examiner in paragraph 3 of the office action, that Kwon does not teach a common carrier of the conductor pattern and electronic elements (see, rejection of claim 1 and discussion above).

Applicant respectfully requests the Examiner to clearly articulate the reasons for the rejection in the next action, or withdraw the rejections, so that Applicant is not burdened to guess what the Examiner's intention for the rejections. Should the Examiner maintain the rejection based on a new ground in the next action, such action should not be made final, given that Applicant has not amended the claims to necessitate the new ground of rejection. Applicant again notes that the present application has already been subject to protracted examination, as a result of improper examination.

New Claim

New claim 14 has been added to round out the coverage of the present invention. Claim 14 recites the number of strip-shaped conductors extend over and are recessed in the first side and the second side of the body. This more clearly distinguishes from the wire 16 in Kwon which the Examiner relied upon to correspond to the recited conductor pattern.

CONCLUSION

In view of all the foregoing, Applicants respectfully submit that the claims pending in this application are patentable over the references of record and are in condition for allowance. Such action at an early date is earnestly solicited. **The Examiner is invited to call the undersigned representative to discuss any outstanding issues that may not have been adequately addressed in this response.**

The Assistant Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this transmittal and associated documents, or to credit any overpayment to **Deposit Account No. 501288** referencing the attorney docket number of this application.

Respectfully submitted,

Dated: December 30, 2008

/Wen Liu; Reg. No. 32,822/

Wen Liu

Registration No. 32,822

LIU & LIU

444 S. Flower Street; Suite 1750

Los Angeles, California 90071

Telephone: (213) 830-5743

Facsimile: (213) 830-5741

Email: wliu@liulaw.com